

| Form PTO-1449 INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary) | | Docket Number (Optional) KVC-02203 (04607-2203) | | Application Number 09/930,738 | | | |
|---|-----------------|--|-----------------|----------------------------------|-----------------|-------------------------------|------------------|
| Applicant Richard B. Dyott | | Filing Date August 15, 2001 | | Group Art Unit 1626 | | | |
| U.S. PATENT DOCUMENTS | | | | | | | |
| EXAMINER INITIAL | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE | |
| <i>sh</i> ↓ | AK | 4,571,650 | 2/18/86 | Ojima et al. | | | |
| | AL | 4,630,229 | 12/16/86 | D'Hondt | | | |
| | AM | 4,630,890 | 12/23/86 | Ashkin et al. | | | |
| | AN | 4,637,722 | 1/20/87 | Kim | | | |
| | AO | 4,668,264 | 05/26/87 | Dyott | | | |
| | AP | 4,669,814 | 06/02/87 | Dyott | | | |
| | AQ | 4,697,876 | 10/06/87 | Dyott | | | |
| | AR | 4,712,866 | 12/15/87 | Dyott | | | |
| | AS | 4,740,085 | 04/26/88 | Lim | | | |
| | AT | 4,755,021 | 07/05/88 | Dyott | | | |
| AU | 4,756,589 | 01/15/86 | Bricheno et al. | | | | |
| FOREIGN PATENT DOCUMENTS | | | | | | | |
| | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | Translation | |
| | | | | | | YES | NO |
| <i>sh</i> ↓ | AV | DE 33 05 104 A1 | 16 Aug 84 | German | | | X |
| | AW | DE 36 15 305 A1 | 12 Nov. 87 | German | | | X |
| | AX | DE 37 42 201 A1 | 22 June 89 | Germany | X | | |
| | AY | EP 0 551 874 A2 | 21 Jul 93 | EPO | X | | X |
| | AZ | EP 0 586 242 A1 | 9 Mar. 94 | EPO | X | | |
| | BA | JP 07209398 | 11 Aug 95 | Japan | | | English Abstract |
| OTHER DOCUMENTS | | | | | | | |
| (Including Author, Title, Date, Pertinent Pages Etc.) | | | | | | | |
| <i>sh</i> ↓ | BB | Alekseev et al; "Fiber Optic Gyroscope With Suppression of Excess Noise From the Radiation Source ", Technical Physical Letters , 24(9): 719-721, (September 1998) | | | | | |
| | BC | Blake et al., "In-Line Sagnac Interferometer Current Sensor," <i>IEEE</i> , pp. 116-121 (1995). | | | | | |
| | BD | Blake and Szafraniec, "Random Noise in PM and Depolarized Fiber Gyros", OSA Symposium Proceedings, 1997, OWB2, pp. 122-125. | | | | | |
| EXAMINER | | | | | DATE CONSIDERED | | |
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 Applicant
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U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|---------------------|-----------------|-----------|----------|-----------------|----------|-------------------------------|
| all | BE | 4,765,739 | 08/23/88 | Koizumi et al. | | |
| | BF | 4,776,700 | 10/11/88 | Frigo | | |
| | BG | 4,796,993 | 01/10/89 | Sonobe et al. | | |
| | BH | 4,815,817 | 03/28/89 | Levinson | | |
| | BI | 4,842,409 | 06/27/89 | Arditty et al. | | |
| | BJ | 4,848,910 | 07/18/89 | Dupraz | | |
| | BK | 4,883,358 | 11/28/89 | Okada | | |
| | BL | 4,887,900 | 12/19/89 | Hall | | |
| | BM | 5,033,854 | 07/23/91 | Matthews et al. | | |
| | BN | 5,048,962 | 09/17/91 | Kurokawa et al. | | |

FOREIGN PATENT DOCUMENTS

| | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | Translation | |
|-----|-----------------|-----------------|------------|-----------------------------|----------|-------------|----|
| | | | | | | YES | NO |
| all | BO | EP 0 686 867 A1 | 13 Dec 95 | European Patent Application | | | X |
| | BP | EP 0 722 081 A2 | 17 July 96 | European Patent Application | | | |
| | BQ | EP 856 737 A1 | 5 Aug. 98 | EPO | | | |
| | BR | EP 0 871 009 A1 | 14 Oct. 98 | EPO | | | |
| | BS | EP 0 872 756 A1 | 21 Oct. 98 | European Patent Application | | | |
| | BT | WO00/36425 | 22 June 00 | PCT | | | |

OTHER DOCUMENTS

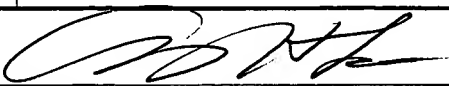
(Including Author, Title, Date, Pertinent Pages Etc.)

| | | |
|-----|----|--|
| all | BU | Bohnert. et al., "Field Test of Interferometric Optical Fiber High-Voltage and Current Sensors" <i>SPIE</i> , Vol. 2360 pp. 16-19 (Feb. 1994). |
| all | BV | Bohnert. et al., "Temperature and Vibration Insensitive Fiber-Optic Current Sensor" <i>ABB</i> , Vol. 2360 pp 336-339 (Feb. 1994). |

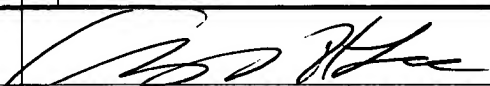
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| U.S. PATENT DOCUMENTS | | | | | | |
| EXAMINER INITIAL | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
| all | BW | 5,074,665 | 12/24/91 | Huang et al. | | |
| | BX | 5,080,489 | 01/14/92 | Nishikawa et al. | | |
| | BY | 5,106,193 | 04/21/92 | Fesler et al. | | |
| | BZ | 5,133,600 | 07/28/92 | Schröder | | |
| | CA | 5,135,555 | 08/04/92 | Coyle, Jr. et al. | | |
| | CB | 5,289,257 | 02/22/94 | Kurokawa et al. | | |
| | CC | 5,289,258 | 02/22/94 | Szafraniec, et al. | | |
| | CD | 5,331,404 | 07/19/94 | Moeller et al. | | |
| | CE | 5,351,123 | 09/27/94 | Spahlinger | | |
| | CF | 5,359,413 | 10/25/94 | Chang et al. | | |
| | CG | 5,365,338 | 11/15/94 | Bramson | | |
| | CH | 5,412,471 | 05/02/95 | Tada et al. | | |
| | CI | 5,459,575 | 10/17/95 | Malvern | | |
| | CJ | 5,469,257 | 11/21/95 | Blake et al. | | |
| | CK | 5,469,267 | 11/21/95 | Wang | | |
| | CL | 5,471,301 | 11/28/95 | Kumagai et al. | | |
| CM | 5,493,396 | 02/20/96 | Sewell | | | |
| ✓ | CN | 5,500,909 | 03/19/96 | Meier | | |
| OTHER DOCUMENTS <i>(Including Author, Title, Date, Pertinent Pages Etc.)</i> | | | | | | |
| all | CO | Burns, et al., "Excess Noise in Fiber Gyroscope Sources", IEEE Photonics Technology Letter, Vol 2, No. 8, August 1990, pp. 606-608. | | | | |
| ✓ | CP | Clark et al., "Application of a PLL and ALL Noise Reduction Process in Optical Sensing System," <i>IEEE Transactions on Industrial Electronics</i> , Vol. 44, No. 1, February 1997, pp. 136-138 | | | | |
| ✓ | CQ | Dagenais et al., "Low-Frequency Intensity Noise Reduction for Fiber-Optic Sensor Applications," <i>Optical Fiber Sensors Conference</i> , 1992, January 29-31, pp. 177-180 | | | | |
| EXAMINER |  | | | DATE CONSIDERED 12/20/04 | | |
| EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant. | | | | | | |

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| U.S. PATENT DOCUMENTS | | | | | |
| EXAMINER INITIAL | DOCUMENT NUMBER | DATE | NAME | CLASS | FILING DATE IF APPROPRIATE |
| ah | CR | 5,504,684 | 04/02/96 | Lau et al. | |
| | CS | 5,552,887 | 09/03/96 | Dyott | |
| | CT | 5,559,908 | 09/24/96 | August, et al. | |
| | CU | 5,654,906 | 08/05/97 | Youngquist | |
| | CV | 5,655,035 | 08/05/97 | Burmenko | |
| | CW | 5,682,241 | 10/28/97 | Mark et al. | |
| | CX | 5,701,177 | 12/23/97 | Kumagai et al. | |
| | CY | 5,767,509 | 06/16/98 | Cardova et al. | |
| | CZ | 5,781,675 | 07/14/98 | Tseng et al. | |
| | DA | 5,854,864 | 12/29/98 | Knoesen et al. | |
| | DB | 5,898,496 | 04/27/99 | Huang et al. | |
| | DC | 5,946,097 | 08/31/99 | Sanders et al. | |
| | DD | 5,987,195 | 11/16/99 | Blake | |
| | DE | 6,025,915 | 02/15/00 | Michal, et al. | |
| | DF | 6,047,095 | 04/04/00 | Knoesen et al. | |
| | DG | 6,075,915 | 6/13/00 | Koops et al. | |
| | DH | 6,148,131 | 11/14/00 | Geertman | |
| | DI | 6,163,632 | 12/19/00 | Rickman et al. | |
| OTHER DOCUMENTS <small>(Including Author, Title, Date, Pertinent Pages Etc.)</small> | | | | | |
| ah | DJ | Dupraz, J.P., "Fiber-Optic Interferometers for Current Measurement: Principles and Technology", Alsthom Review No. 9: 29-44 (December 1987). | | | |
| ah | DK | Frosio, G. and Dändliker, "Reciprocal Reflection Interferometer for a Fiber-Optic Faraday Current Sensor", Applied Optics 33 (25): 6111-6122 (September 1, 1994). | | | |
| ah | DL | Gronau Yuval et al.; "Digital Signal Processing For An Open-Loop Fiber-Optic Gyroscope", Applied Optics, Optical Society of America, Washington, U.S., vol. 34, no. 25, 1 September 1995, pgs. 5849-5853 | | | |
| EXAMINER |  | | | DATE CONSIDERED 12/20/04 | |
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OTHER DOCUMENTS

(Including Author, Title, Date, Pertinent Pages Etc.)

| | | |
|---|----|---|
| ✓ | DS | Killian M. Kevin; "Pointing Grade Fiber Optic Gyroscope", IEEE AES Systems Magazine, pp. 6-10 (July 1994) |
| ↓ | DT | LaViolette and Bossler: "Phase Modulation Control for An Interferometric Fiber Optic Gyroscope", IEEE Plan 90, Position Location and Navigation Symposium, Las Vegas, (March 20-23, 1990) |
| ↓ | DU | Lefevre, "The Fiber-Optic Gyroscope", Artech House, Boston, pp. 29-30 (1993) |
| ↓ | DV | McCallion and Shimazu; "Side-Polished Fiber Provides Functionality and Transparency", Laser Focus World, 34 (9): S19- S24, (September 1, 1998) |
| ↓ | DW | Moeller and Burns, "1.06μm All-fiber Gyroscope with Noise Subtraction, Proceedings of the Conference on Optical Fiber Sensors", IEEE-OSA, Monterey, CA, 1992, pp. 82-85 |
| ✓ | DX | Moeller and Burns, "Observation of Thermal Noise in a Dynamically Biased Fiber-Optic Gyro", Optical Letters, 1996, Vol. 21, pp. 171-173. |

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OTHER DOCUMENTS
(Including Author, Title, Date, Pertinent Pages Etc.)

| | | |
|----|----|---|
| ad | DY | Nikos Drakos, "Circular Polarization States for Light, and Quarter-Wave Plates," <i>Computer Based Learning Unit, University of Leeds</i> (March 2, 1998) |
| | DZ | Ono et al.; "A Small -Sized, Compact, Open-loop Fibre-Optic Gyroscope with Stabilized Scale Factor", <i>Meas. Sci. Technol.</i> 1: 1078-1083, (1990) |
| | EA | Polynkin et al.; "All-Optical Noise-Subtraction Scheme for a Fiber-Optic Gyroscope", <i>Optics Letters</i> , 25(3): 147-149, (February 1, 2000) |
| | EB | Rabelo et al.; "SNR Enhancement of Intensity Noise-Limited FOGs", <i>Journal of Lightwave Technology</i> 18(12):2146-2150 (December 2000) |
| | EC | Short, S. et al., "Elimination of Birefringence Induced Scale Factor Errors in the In-Line Sagnac Interferometer Current Sensor", <i>Journal of Lightwave Technology</i> 16 (10): 1844-1850 (October 1998). |
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